

Syncthing

Synchronize Your Files Seamlessly with Syncthing

In today's digital landscape, maintaining synchronized files across multiple devices is essential for productivity and data management. Syncthing is an open-source, peer-to-peer file synchronization tool that allows you to keep your files up-to-date across different devices securely and efficiently. This blog post explores the features of Syncthing, provides installation and setup instructions using Docker-Compose, and offers guidance on getting started.

What is Syncthing?

Syncthing is a continuous file synchronization program that synchronizes files between two or more computers in real-time. Unlike traditional cloud storage services, Syncthing operates in a decentralized manner, meaning it doesn't rely on a central server. This ensures your data remains private and under your control.

Key Features of Syncthing

1. Decentralized and Secure

- **Peer-to-Peer Architecture:** Syncthing uses a decentralized approach, eliminating the need for a central server.
- **End-to-End Encryption:** Ensures that all data transmitted between devices is encrypted, protecting your privacy and data integrity.

2. Real-Time Synchronization

- **Continuous Sync:** Syncthing detects and synchronizes changes to files across all devices in real-time.
- **Bidirectional Sync:** Files can be updated from any device, with changes propagated to all connected devices.

3. Cross-Platform Compatibility

- **Multi-OS Support:** Compatible with various operating systems, including Windows, macOS, Linux, FreeBSD, and more.
- **Mobile Apps:** Available for Android, allowing you to sync files on the go.

4. User-Friendly Interface

- **Web GUI:** Manage Syncthing through an intuitive web-based graphical user interface (GUI).
- **Customizable Settings:** Adjust synchronization options, including folder settings, versioning, and conflict resolution.

5. Highly Configurable

- **Selective Sync:** Choose specific folders or files to sync, saving bandwidth and storage space.
- **Versioning:** Keep a history of file changes, enabling you to revert to previous versions if needed.

Installing Syncthing Using Docker-Compose

Docker-Compose simplifies the process of setting up and managing Syncthing. Follow these steps to get Syncthing up and running using Docker-Compose.

Step-by-Step Docker-Compose Installation

1. **Install Docker and Docker-Compose**
2. **Create a Docker-Compose File**

Create a directory for your Syncthing setup and navigate to it. Create a `docker-compose.yml` file with the following content:

```
services:
  syncthing:
    image: lscr.io/linuxserver/syncthing:latest
    container_name: syncthing
    hostname: syncthing
    environment:
      - PUID=${PUID}
      - PGID=${PGID}
      - TZ=${TZ}
      - STGUIADDRESS=
```

```
volumes:
  - ${DOCKER}/syncthing:/config
  - ${DOCKER}/syncthing/data1:/data1
  - ${DOCKER}/syncthing/data2:/data2
ports:
  - ${HTTP_PORT}:8384
  - 22000:22000/tcp
  - 22000:22000/udp
  - 21027:21027/udp
restart: unless-stopped
```

This configuration maps the necessary ports and volumes for Syncthing.

3. Start Syncthing

Open a terminal, navigate to the directory containing the `docker-compose.yml` file, and run the following command:

```
docker-compose up -d
```

This command will pull the Syncthing Docker image and start the container in detached mode.

4. Access the Syncthing Web GUI

Open your web browser and navigate to `http://localhost:8384` to access the Syncthing web interface.

Basic Setup Instructions

Once Syncthing is running, you'll need to configure it to start syncing your files across devices.

Step 1: Add Remote Devices

- In the Syncthing web GUI, click on "**Add Remote Device**".
- Enter the Device ID of the remote device you wish to sync with. You can find the Device ID in the web GUI of the remote Syncthing instance.
- Optionally, give the device a name and configure sharing settings.

Step 2: Add Folders to Sync

- Click on "**Add Folder**" in the Syncthing web GUI.
- Specify the folder path on your local device that you want to sync.
- Share the folder with the remote devices by selecting them under "**Sharing**".

Step 3: Start Synchronization

- Once the remote device accepts the connection and folder sharing, Syncthing will start synchronizing the specified folders automatically.

Useful Links

- [Syncthing Official Website](#) - Learn more about Syncthing and download the software.
- [Syncthing Documentation](#) - Access detailed setup guides and documentation.
- [Syncthing GitHub Repository](#) - Explore the source code and contribute to the project.
- [Syncthing Forum](#) - Join the community for support and discussions.

Conclusion

Syncthing is a powerful, open-source solution for real-time file synchronization across multiple devices. Its decentralized architecture, robust security features, and user-friendly interface make it an ideal choice for individuals and organizations looking to keep their data in sync without relying on third-party cloud services. By following the Docker-Compose installation and setup instructions, you can quickly get Syncthing up and running, ensuring your files are always up-to-date and secure.

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